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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,000	04/06/2000	David A. Cathey	3976US (98-0063)	7982

7590 01/13/2003

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EXAMINER

ZAMANI, ALI A

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 01/13/2003

70

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/544,000

Applicant(s)

CATHEY, DAVID A.

Examiner

Ali A. Zamani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 10, 14, 15 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 5, 9, 13, 16-17 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1-4, 6-8, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over shipman (US Pat. No. 6,217,183).

IN regard to claims 1-4, 6-8, 10 and 14 Shipman teaches a remote computer keyboard comprising: an enclosure member (13); a printed circuit board (21 positioned in enclosure member (13) ; a plurality of depressible key switch (9) devices array above printed circuit board (39); a key cap (310) mounted atop each switch device (33) of plurality, each cap having at least one identifying graphic symbol (35) formed on an upper surface thereof; and luminescent material (LEDs) illuminating at least one graphic symbol on each cap (see Figs 1-4), light rays (53) received upon the light channeling membrane's (37) outer surface is channeled throughout the translucent material to the key members (11) a diaphragm (19) having a plurality of elastic projections (20) for biasing the key members (11) upwardly (see Figs 4-7). Preferably, the upper surface of the light channeling membrane (37) is coated or otherwise constructed with an opaque coating (51) so that only the upper surfaces (33) of the key members (11) are seen to

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illuminate by the keyboard operator and a light source is comprised of one or more light strips (45) which can be either liquid emitting diodes (LED) or (LCD) systems on other constructions known to those skilled in the art which emit light upon the exterior side or bottom surfaces of the light channeling membrane (37) and also the light source can be made up of one or more fiber optic cables (47) provide a highly illuminescient surface where the curved cylindrical surface has been notched, knurled, scratched or otherwise flawed, the fibrotic cables (47) are routed alongside, below or embedded in the light channeling membrane (37) so that light rays (53) emitted from the cylindrical outer surface of the fiber optic cables (47) are received by the translucent material and channeled within the membrane's translucent region (43) to the key members (11). Shipman teaches the key caps of the keyboard (1) are partially translucent and illuminated by a light source which is comprised one of luminescent materials (45) which can be either liquid emitting diodes (LED) or LCD systems on other construction known to those skilled in the art which emit light upon the exterior side or bottom surfaces of the light channeling membrane (37) (see Fig. 4) and it is noted that those skilled in the art cap can be manufactured using almost any known material or manufacturing technology, it can be made of clear or translucent material and it can also be illuminated with known luminescent material. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the luminescent material with identifying indicia to each cap of the keyboard of Shipman in order to help the operator find the correct key in dark conditions.

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Claim Rejections - 35 USC § 103

3. Claims 12, 15 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shipman in view of Klein. (US Pat. No. 5,925,110).

In regard to claims 12, 15 and 18-21, Shipman is discussed above. Shipman substantially teach the above claimed limitations except for teaching a “chemical source of electrical power”. However, Klein teaches a method of determining the state of a keyboard key is disclosed, more particularly, to the use of a wireless keyboard with a low power consumption (see the abstract). Klein substantially teaches the switched power supply (108) may receive power from a plurality of the sources (see Figs. 1 and 3) and power may be supplied to the switched power supply (108) from a battery (117) that is recharged by a RF signal (col. 5, lines 23-44). Thus, it would have been obvious to one of ordinary skill in the art to utilize the chemical source of electrical power of Klein in the keyboard of Shipman in order to provide a durable lighting keyboard system that results in a durable and low maintenance with a low power consumption.

Allowable Subject Matter

4. Claims 11, 23-24 are allowable over prior art of record.

The following is an examiner's statement of reasons for allowance; the prior art does not teach:

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“ A remote computer keyboard comprising: an enclosure member, a printed circuit board positioned in the enclosure member; a plurality of depressible key switch devices arrayed above said printed circuit board; and a key cap mounted atop each switch device of said plurality of switch devices, each key cap having at least at least one identifying graphic symbol formed from material embedded with tritium.

5. Claims 5, 9, 13, 16-17 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's arguments with respect to claims 1-4, 6-8, 10, 12, 14-15 and 18-21 have been considered but are moot in view of the new ground(Shipman) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Zamani whose telephone number is (703) 308-6414. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerepe, can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

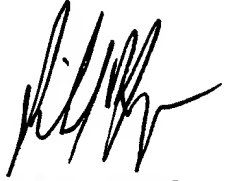
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ali Zamani

January 10, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600